

A novel method for increasing MHC presentation of oncogene derived neoantigens

Tech ID: 31833 / UC Case 2020-070-0

INVENTION NOVELTY

The invention describes a platform technology that increases MHC presentation of oncogene derived peptide neoantigens that do not normally occur in the cell. The platform has already been used to identify a method of increasing KRAS G12 D/V derived peptide presentation on MHC- I.

VALUE PROPOSITION

- ▶ The invention provides a platform to screen computationally and experimentally for a cell's ability to present cancer neoantigens.
- ▶ The technology provides a strategy to enhance antigen presentation and bring intracellular oncogenes to the cell surface so that they are visible by T-cell surveillance.
- ▶ The technology provides a new dimension of therapeutic intervention for cancer as it expands the repertoire of epitopes targetable by small molecules and/or immunotherapy.
- ▶ Targeting driver oncogenes is advantageous because it is cancer specific and is essential for cancer growth.

LOOKING FOR PARTNERS

We are looking for partnerships to further develop the technology as a platform that enhances cellular presentation of various oncogenes by MHC and to develop cancer therapeutics using this approach.

STAGE OF DEVELOPMENT

Proof of concept

DATA AVAILABILITY

Under CDA/NDA

PATENT STATUS

Country	Type	Number	Dated	Case
European Patent Office	Published Application	EP4081254	11/02/2022	2020-070

Additional Patents Pending

CONTACT

Catherine Smith

Catherine.Smith2@ucsf.edu

tel: 510-646-0631.



OTHER INFORMATION

KEYWORDS

oncogene-derived

neoantigen, MHC

presentation, small molecule

CATEGORIZED AS

- ▶ **Biotechnology**
- ▶ Other
- ▶ **Medical**
- ▶ Disease: Cancer
- ▶ Other

RELATED CASES

2020-070-0

ADDRESS

UCSF

Innovation Ventures

600 16th St, Genentech Hall, S-272,
San Francisco, CA 94158

CONTACT

Tel:

innovation@ucsf.edu

<https://innovation.ucsf.edu>

Fax:

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